

**Texas Commission on Environmental Quality's (TCEQ)  
Comments to the Federal Land Managers' (FLMs)  
Air Quality Related Values Workgroup (FLAG) Phase I Report--Revised**

1. Commonalities among Federal Land Managers (FLAG Report p. 6)

The TCEQ appreciates the general guidance to FLMs to try to coordinate their interactions with the permitting authority and applicant when a single source could affect more than one Class I area. The TCEQ recommends, though, that there be a transparent mechanism to involve the executive management of the three primary agencies to resolve debates between permitting authorities, FLMs in the field, and the applicant expeditiously.

The TCEQ encourages FLM agencies to ensure coordination and agreement between all five regional planning organizations before implementing any recommendations not subject to public notice and comment. In addition, the TCEQ recommends that the FLM agencies develop a system to ensure that outdated positions, or positions that are new, superseded, or updated, are readily available to permitting authorities, the regulated community, and the public. It should not be up to these affected groups to know which guidance is current or guidance that a single FLM considers relevant and should be followed.

2. Determining the Levels of Pollution That Trigger Concern for the Well-Being of Air Quality Related Values (AQRVs) (FLAG Report p. 7)

The TCEQ appreciates the FLMs' commitment to develop consensus on the levels of pollution that trigger concerns for AQRVs. In addition, the TCEQ shares the FLMs' concerns related to air emissions that are difficult to quantify (in time, amount, or form of release) and control, such as emissions from global, interstate, and natural sources as well as intrastate minor, area, and mobile sources. In light of these difficulties, the TCEQ encourages the FLMs to temper approaches when working with applicants through the Environmental Protection Agency (EPA) New Source Review Program.

3. Regulatory Developments Since Flag 2000 (FLAG Report p. 8)

The FLAG cites the EPA promulgated revisions to Appendix W of 40 Code of Federal Regulations (CFR) §51 (Guideline on Air Quality Models) to confirm the FLMs' choice of the California Puff (CALPUFF) model as the preferred long-range transport model for national ambient air quality standards (NAAQS) and prevention of significant deterioration (PSD) analyses. In addition, the FLAG cites improved computer technology and the availability of more meteorological data. The FLMs then justify the modeling approaches suggested in the FLAG guidance document analyses based on these improvements.

The TCEQ would caution that just because one can do more based on increased computer capacity or the improved capability of a model to provide predictions at great distance and at amounts smaller than the general public can comprehend does not necessarily justify the FLAG approach. As models attempt to address complex atmospheric transport, chemical transformation, deposition, and dispersion, the attempts to "ground-truth" the models becomes increasingly more difficult. The EPA has acknowledged the limitations of the CALPUFF model for use in long-range modeling demonstrations. Meteorology and predictions relative to specific downwind locations and date/times rather than some worst-case prediction somewhere in the modeling domain are continuing concerns. "Case-by-case" decisions made related to challenges such as the lack of representative emissions factors, incomplete or non-representative source inventories, and the number of choices available to "fine tune" the models and critical meteorology and terrain data do not lead to reasonably consistent and transparent approaches among states or FLMs nor model demonstrations that can be easily understood or duplicated.

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In addition, the TCEQ recommends that the FLMs allow for broad flexibility and reasonableness when developing modeling protocols or suggesting emission controls and permit conditions. This flexibility was addressed by the EPA Environmental Appeals Board on pages 158-159 of the *PRAIRIE STATE GENERATING COMPANY, PSD Appeal No. 05-05, ORDER DENYING REVIEW, Decided August 24, 2006*:

“We specifically reject Petitioners’ contention that IEPA was required to adhere to the FLAG Guidance in all respects and was not allowed to make adjustments based on IEPA’s case-specific determinations in this matter. With respect to other guidance documents, we have frequently held that “an agency cannot, consistent with the Administrative Procedure Act, utilize \* \* \* [a] policy statement as if the policy were a ‘rule’ issued in accordance with APA ‘rulemaking procedures’” and that “[t]he agency must, in some meaningful way, keep an ‘open mind’ about the issues addressed in the policy document, and cannot act as if those issues are no longer subject to debate.” *Employers Ins. of Wausau*, 6 E.A.D. 735, 761 (EAB 1997). In particular, the Agency “must be prepared ‘to re-examine the basic propositions’ on which the Policy is based [] in any case in which those ‘basic propositions’ are genuinely placed at issue.” *Id.* (citation omitted; citing *McLouth Steel Products Corp. v. Thomas*, 838 F.2d 1317 (D.C. Cir. 1988)). In the present proceeding, Prairie State challenged certain assumptions or policy positions set forth in the FLAG Guidance and provided expert evidence supporting proposed case-specific deviations from the FLAG analysis. As a result, IEPA was required to “re-examine the basic propositions” of the FLAG Guidance that Prairie State placed at issue and to consider the evidence put into the record by Prairie State. Petitioners have not shown on appeal that IEPA’s analysis of this evidence and its conclusions based on the record of this proceeding are clearly erroneous or fall below the standard of rationality.”

4. Notification (FLAG Report p. 12)

The TCEQ supports the concept of effective coordination with the FLMs; however, cannot agree to unlimited distances from a source to a Class I area that would trigger an automatic increment/AQRV review. The TCEQ has encouraged the EPA to define presumptive distance limits and adopt a previous proposal to develop a database of PSD projects for FLM use (61 FR 38250, 38325, July 23, 1996).

Also refer to Comment 10 that includes a discussion of the FLAG screening procedure.

5. Visibility Protection Procedures (FLAG Report p. 13)

The TCEQ disagrees that the initial notification to the FLM should include the proposed source’s anticipated impacts and that the TCEQ must notify the FLM at least 60 days prior to the close of the comment period. At the first public notice for the project, the application has been received but no technical review has been completed. This notice alerts the public and the FLM to an administratively complete proposed project. However, the TCEQ requires applicants to notify the FLM of projects proposed to locate within 100 km, so the FLMs have early notice of intent to construct. The notification to the FLM is an acknowledgment only of a “potential to impact.” It is at this point that the FLM, applicant, and TCEQ should start to coordinate on the technical analysis protocol to determine the level of impact and whether the impact could be deemed “adverse.” In Texas, the second public notice includes the TCEQ’s Preliminary Determination Statement and draft permit; the public and the FLM would have 30 days to review and respond to the notice. The TCEQ interprets the 60-day requirement in 40 CFR §52.27(d) and 40 CFR §51.307(a) to apply to public hearings not prior to the close of the comment period.

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6. Air Quality Impact Analysis (FLAG Report p. 14)

Currently, there are no regulatory Significant Impact Levels (SILs) for Class I areas. The EPA proposed SILs for Class I areas in 1996 as part of a comprehensive proposal to revise the major New Source Review (NSR) regulations (61 FR 38250, 38325, July 23, 1996) that were not adopted, and in 2007 (72 FR 54138-54140) as part of the PSD implementation for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>), currently pending.

In comments to the EPA related to the Prevention of Significant Deterioration New Source Review: Refinement of Increment Modeling Procedures; Proposed Rule, the Western States Air Resources Council (WESTAR) points out that "Many States are using the significant impact levels EPA included in its 1996 proposed PSD rule; however, EPA has not finalized these levels." The TCEQ was not aware of this practice, and was not offered the use of these SILs by the FLM for any analyses; this practice clearly points out the inconsistency that must be eliminated from a national process.

Per 40 CFR §51.166, the applicant must demonstrate that source emissions will not cause or contribute to a violation of a NAAQS or increment. Therefore, the concept of significant impact must be considered. The EPA Environmental Appeals Board addressed this concept on page 140 of the *PRAIRIE STATE GENERATING COMPANY, PSD Appeal No. 05-05, ORDER DENYING REVIEW, Decided August 24, 2006*.

"First, Petitioners' argument does not comport with the plain terms of the statute. Read in context, the requirement of an owner or operator to demonstrate that emissions from a proposed facility will not 'cause, or contribute to' air pollution in excess of a NAAQS standard must mean that some non-zero emission of a NAAQS parameter is permissible, otherwise such a demonstration could not be made. Courts have long recognized that EPA has discretion under the Clean Air Act to exempt from review 'some emission increases on grounds of de minimis or administrative necessity.' *Alabama Power Co. v. Costle*, 636 F.2d 323, 400 (D.C. Cir. 1979). Moreover, EPA has long interpreted the phrase 'cause, or contribute to' to refer to significant or non-de minimis, emission contributions. This interpretation is reflected in both applicable EPA regulations and in long-standing EPA guidance."

Therefore, the TCEQ encouraged the EPA to adopt SILs for Class I areas. However, the TCEQ does not agree with the EPA or the FLMs that the use of SILs should not apply in any way to AQRV analyses. The SILs should be used as an appropriate de minimis threshold when an FLM has not identified a specific AQRV related to the pollutant under evaluation or obtained ambient air monitoring to confirm that predicted concentrations from air dispersion models are representative of actual AQRV impacts in a Class I area. Without this flexibility, applicants would be required to conduct complex and extensive Class I air dispersion modeling with no clear objective. In addition, permitting authorities would have to review the modeling but would have limited information to determine if the emissions could cause an "adverse" impact or to determine if potentially costly controls should be required.

7. Cumulative Impact Analysis (FLAG Report p. 14-15)

The TCEQ agrees that natural resources and AQRVs associated with Class I Areas need to be protected and such protection can, at times, require examining emissions impacts beyond those produced by a single major source. Since the Clean Air Act (CAA) fails to expressly identify "cumulative analysis" related to AQRVs as a mandatory requirement, the TCEQ encourages the FLMs to request that EPA clarify whether and how the CAA supports or does not support

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cumulative AQRV analysis for single source permit review. Even with this clarification, additional needs must be met (e.g., resources identified and a workable approach to addressing adverse impact findings) to meet the desired goal of conducting AQRV analyses in support of protecting natural resources in Class I areas.

The FLAG report discusses the concept of cumulative modeled impact but does not define contributing "sources in the area" that should be included in the AQRV analysis. The TCEQ suggests that cumulative analysis only be conducted if SILs are equaled or exceeded and only stationary sources (including permitted sources but not operating yet) within the project's area of impact in the analysis included.

The TCEQ encourages the FLM to explicitly exclude temporary, intermittent, or fugitive emissions from the analysis. "Fugitive" emissions such as those from piping, stockpiles, roads, and feedlots should be excluded, as the emissions are directly driven by activities and meteorology and are neither continuous nor constant. In addition, there is no consistent approach to develop an inventory of emissions from fugitive sources. Nor will models provide accurate predictions of impacts from fugitive sources -- particularly as distances increase away from a source. The TCEQ suggests that the FLMs consider alternative approaches to control emissions from fugitive sources, particularly if they would be considered as "hot-spot" sources of emissions.

The TCEQ recommends that the FLMs work with the EPA to define the term "temporary" and exclude any temporary, non-continuous, non steady-steady emissions from any AQRV analyses. In addition, the TCEQ is concerned about the lack of guidance related to emissions from planned maintenance, startup, and shutdown activities. If these emissions are included in an AQRV analysis, the state will waste resources conducting or reviewing air dispersion modeling analyses and developing plans to eliminate predicted increment violations or adverse AQRV concerns related to these emissions.

8. Adverse Impact Determination (FLAG Report p. 17)

The TCEQ appreciates the FLMs' willingness to modify the listed steps and associated flexibility contained in the report.

9. Criteria for Decision Making (Adverse Impact Considerations) (FLAG Report p. 18)

As previously stated in Comment 6, if the FLM bases a decision on a "demonstration that the current or predicted deterioration of air quality will cause or contribute to a diminishment of the area's national significance, impairment of the structure and functioning of the area's ecosystem, or impairment of the quality of the visitor experience in the area," then it is incumbent on the FLM to clearly identify SILs for each AQRV.

In addition, the TCEQ wants to ensure that the decision-making process will allow an applicant or the state to use or suggest procedures that may differ from those in the FLAG guidance document on a case-by-case basis.

10. Initial Screening Criteria (FLAG Report p. 26-27)

The TCEQ supports the concept of screening approaches designed to eliminate the need for a more resource-intensive, detailed modeling approach to a cumulative analysis in situations where a simpler analysis, relying on more conservative emissions, is sufficient to demonstrate that the proposed source would not cause or contribute to any adverse AQRV impact.

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The TCEQ does not agree with the screening criteria proposed in the FLAG Report as they appear to be subjective, overly conservative, not based on a rigorous analysis and modeling demonstration, and provide no consistent and transparent screening alternative.

The TCEQ does not agree with the use of a multiple-pollutant annual total based on 24-hour maximum allowable emissions; the requirement to adjust the tons-per-year emissions for sources that do not operate continuously to reflect what the emissions could be if the source operated year-round; or ignoring dispersion characteristics, such as release height, diameter, exit velocity, and exit temperature. The FLMs state that they based their approach for all AQRVs on the screening approach that EPA developed specifically for the best available retrofit technology (BART) analysis process. However, the BART guidelines are not necessarily applicable to NSR. The TCEQ does not concur with the overly conservative adjustments to that guidance that were based on a relationship between steady-state actual emissions and corresponding meteorology – not worst-case allowable emissions and any 5-year meteorological data set.

11. Distant/Multi-Source Techniques for Analyzing Whether a Plume or an Aggregation of Plumes Alters the General Appearance of a Scene (FLAG Report p. 33-37)

- a. General. The TCEQ wants to ensure that the process to determine visibility impacts is consistent, transparent, and allows for reasonable flexibility. The models and modeling systems have known issues related to assessing single and multiple sources in a temporally and spatially varying meteorological domain; accommodating modeling domains measuring hundreds of kilometers, including rough and complex terrain, providing pollutant concentration estimates for averaging times from one-hour to annual; and addressing inert and secondarily formed pollutants and dry and wet deposition – these issues may take years to resolve. Therefore, it is critical that all agencies allow for reasonable approaches and ensure that resources of both the applicants and the agencies are not wasted.

b. Emissions Input

The TCEQ does not agree the emission rates must correspond to a maximum allowable 24-hour mass emission rate, as opposed to monthly or annual average emissions. Using a 30-day average emission rate as input to the visibility modeling analyses might be appropriate as was indicated on pages 159-160 of the EPA Environmental Appeals Board on pages 158-159 of the *PRAIRIE STATE GENERATING COMPANY, PSD Appeal No. 05-05, ORDER DENYING REVIEW, Decided August 24, 2006*:

“Second, Petitioners contend that “IEPA did not address [the FLM’s] concern that [Prairie State’s] modeling was using a 30-day rolling average for SO<sub>2</sub>, and not a 24-hour average.” Petition at 72; *see also* Petitioners’ Reply at 20. This contention is plainly false – IEPA specifically explained why it found the modeling based on a 30-day average to be appropriate: The 30-day rolling average emission rate is believed to be protective of air quality and air quality related values (including visibility) in the Mingo Wilderness. Regardless, infrequent, short-term excursions at higher emission rates would not be expected to result in visibility impacts significantly different from those based upon the Method 7 analysis used for the 30-day rolling average emission rate, and thus would not be expected to alter the Illinois EPA’s conclusions regarding visibility impacts in this Class I area. Based on information in the record, the likelihood of the worst meteorological conditions and operation at the 0.42 lb/mmBtu short-term limit occurring simultaneously is 0.015%, or in other terms, 1 day in 18 years. Given that low

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probability, analyzing visibility impacts using the short-term limit as suggested by [FLM] would significantly and unreasonably overstate the potential impacts to Mingo. While the models may be conservative, they should not be excessively conservative.”

“IEPA’s Response Letter to FLM at 7.131 Petitioners simply have not convinced us that the modeled 30-day average emissions rate misrepresents the proposed Facility’s likely impact in the circumstances of this case where the 30-day average emissions rate is supported by a 98% control efficiency limit and the Class I area at issue is located 170 kilometers from the Facility. Moreover, as we noted in our discussion above in Part II.D.1.b, when considering modeling used to determine compliance with the ozone NAAQS, the regulations in 40 C.F.R. part 51, Appendix W, vest considerable discretion in the permit issuing authority’s judgment in selecting appropriate modeling protocols, including the modeled emission rate. Thus, on the record of this proceeding, we conclude that Petitioners have failed to show that IEPA committed clear error or that IEPA’s analysis fell below the standard of rationality in approving use of the 30-day average emissions limit in the modeling of impacts on visibility and other air quality-related values applicable to the Mingo Class I area.”

c. Condensable Particulate Matter (PM)

The TCEQ does not agree with the guidance concerning speciation into filterable and condensable PM at this time. Please refer to the Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>) and subsequent changes to 40 CFR 51 and 52.

d. Refined Analysis

The TCEQ encourages the FLMs to balance the effort needed to conduct a reasonable modeling analysis and refer the FLMs to the previously referenced EPA Environmental Appeals Board decisions. Requiring the expenditure of agency resources with the expectation that more refined results can be obtained with untested or unproven emissions inventories, models and modeling support systems is unfair to all. More refined results may not be better results nor will they necessarily lead the permitting authority to conclude that the impact based on these results is adverse.